

FACT SHEET ON QUALIFYING FACILITIES AND HB 491

*Produced by: Montana Small Independent Renewable Generators (MSIRG)
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What are QFs?

Qualifying Facilities are small-scale renewable (biomass, waste, water, wind, etc) generators of electricity, or are co-generators, meaning they produce electricity from traditional fuels like coal or recycled coal, but do so in a way that maximizes the efficiency of the generation by re-using the byproduct of the generation process (such as steam or water). In this way, renewables and cogenerators minimize the carbon and other hazardous emissions caused by traditional coal-fired power plants. In Montana, by Commisison rule, QFs cannot be bigger than 50MW in nameplate capacity. As small-scale facilities, QFs can spread economic benefits (increased property tax revenues, land rents, jobs, etc.) around rural communities and counties throughout the state.

What is PURPA?

The federal Public Utility Regulatory Policies Act (PURPA) of 1978 and its implementing regulations encourage the development of small-scale renewable energy projects. They require all regulated utilities to purchase power from QFs at prices at or below what the utility would otherwise pay for the same amount of power, in other words the utility's "avoided costs". PURPA also encourages the use of long-term (15-20 year) contracts because, practically speaking, financing is only available for longer-term projects. Therefore, "avoided costs" are calculated prospectively; they are a forecast of what the utility will pay for power in the next 10-15 years. Each state's regulators (in Montana, the Public Service Commission) set the rates and conditions for QF power purchases based on their calculation of avoided costs, which is in turn based on detailed information submitted by the utility of its other alternative power purchases. In this way, both the utility purchaser and the electric consumer are financially indifferent to whether the power is coming from a QF or from any other resource, because the price of QF power will not exceed that of the utility's other alternative power purchases. Renewable energy production is encouraged while protecting consumers from rate hikes.

What if the power produced by QFs is predicted to be more expensive than NorthWestern's other power purchase options?

The law does not allow the purchase rate for QF power to be more than what NWE would otherwise pay for power from other sources. NWE is protected from having to pay above-market rates for this power. If a renewable project developer's costs are higher than the cost of the utilities' alternatives, then the project will be unfeasible and the QF developer will not sell its power to the utility at a loss.

What if NWE enters into a long-term contract with a QF at a reasonable market-based rate, but then the market price of electricity goes down during the contract? Won't NWE end up paying more than the market rate then?

Yes. However, purchasing power from a QF at a long-term rate also works the other way: it insulates NWE from the possibility that the short-term market price for electricity will rise. For purposes of long-term planning and stability of prices for rate-payers, long-term contracts are favored as a matter of public policy and this is already written into Montana law.

What purchase rate are new QFs offered for their power?

Right now, a QF forming a new power sales contract with NWE has three choices under the “standard rate” set by the PSC:

- (1) \$49.90/MWH,
- (2) The daily market rate of power set by a regional power sales market (a.k.a. the “Mid-C rate”). In the last year, this rate has averaged at \$57.75/MWH.
- (3) A rate equal to NWE’s hourly avoided costs (in other words, the rate at which NWE could purchase an equivalent amount of energy, as it fluctuates every day). No project has chosen option number 3, because of the difficulties of getting NWE to account for its hourly avoided costs.

What is NWE currently paying for its other (non-QF) supplies?

NWE recently told the PSC that the best indicator of its default non-QF power supply cost is \$62.37/MWH (based on its new generation asset, Colstrip Unit 4).

So which is more expensive for NWE, QF power or non-QF power?

QF power cannot be priced higher than non-QF purchases as a matter of law and it is not priced higher than non-QF purchases as a matter of fact: NWE’s stated default power purchase rate is \$62.37/MWH while QF power costs either \$49.90/MWH or is tied to the market rate which, this past year averaged less than \$40/MWH. The average rate, according to NWE’s own calculations, of QF power over the last year was \$50.21/MWH. (See attached spreadsheet).

But aren’t a lot of QFs wind projects, and isn’t wind more expensive because it’s intermittent and hard to integrate into the system?

No one disputes that wind is an intermittent resource and that utilities have to ensure that customers don’t encounter power failures when it’s not blowing. Utilities do this mostly by purchasing “regulating reserves” – power resources that can come online very quickly and make up for any shortcomings of wind. While these resources do cost money, it is the QFs, not NWE, that pays for them through an “integration charge” subtracted from the rate paid for power to the QF. For example, a recent contract settled between NorthWestern and a wind QF had a rate set at the market price (i.e., about \$57.75/MWH) but also included an integration charge of about \$5/MWH. In the end, therefore, NWE gets a firm-up resource at a bargain price of about \$52.75/MWH.

How does QF power in the system affect ratepayers?

It doesn't. QF contracts are all factored into the energy rate you see at the top of your bill. Since they do not cost NWE more than their other purchases, NWE does not pass on any additional costs to the ratepayers.

What about the "CTC-QF" I see on my bill? Isn't that an additional charge that accounts for QF purchases?

No. The CTC-QF is a remnant debt from NWE's purchase of Montana Power Company. When the Public Service Commission approved that purchase, it also approved an agreement reached between NWE, the Montana Consumer Counsel, and a number of other groups regarding how to manage the very high costs (\$682 million of "transition charges") that NWE paid MPC for the QF contracts already in use on the system. Part of that money was to be recovered in regular consumer rates tied to the existing QF contracts, and those rates were set for remaining lives of the contracts and are now contained in the basic energy rate paid by consumers. (Currently the consumer rate for these contracts is \$34.01/MWH, far below the average market rate for power). The rest of the transition charges were to be recovered through the "CTC-QF", an annual payment made by all electricity consumers. (This year, for instance, NWE is recovering about \$25 million in CTC-QF charges from its customers and currently this works out for residential customers as \$.0032/kwh). The total amount will be repaid to NorthWestern by the ratepayers as of 2031. So the cost on consumer electric bills as "CTC-QF" has nothing to do with current QF-contracts and will not change, no matter how much more QF power is put on the system. It is simply the repayment of an old NWE purchase.

HB 491... If QF power is no more expensive than NWE's other power purchases, and we have so much renewable power potential, why is there not more of it on NWE's system?

Enforcement of PURPA in Montana has been lax; the Code does not clearly or explicitly require adherence to PURPA. For example, NWE has failed to submit the data required by the federal regulations which is supposed to be the basis of the Commission's calculation of avoided costs and therefore the basis of its rate-setting for QF contract rates.¹ Based on this and other failures, the rates for QF contracts have not been set in a regular or ordered fashion, nor have they been set in a way to encourage QF development. Some QFs have had to sue NWE before the Commission and state courts, providing an excuse for NorthWestern to call QF contracts "difficult", "expensive" and inefficient. But QFs are not to blame. NorthWestern's mismanagement of its QF-related obligations that has been incredibly difficult, expensive and inefficient.

HB 491 does not seek to change NWE's obligations under either the federal or Montana law. Instead, it simply clarifies the obligations of the utility and the obligations of the PSC in regard to QF contract formation, according to the terms already written into the federal regulations. By doing this, we hope to make the utility's obligations and the intent of the legislature clearer and enforceable by any aggrieved party in Montana state court.

This bill does basically three things:

- 1) "Housekeeping" provisions – removes the "temporaries" and conditional repealers from all sections and adds definitions of key terms in Section 2. The temporaries and conditional repealers were added at a time when it was unclear whether federal PURPA would survive. At this point, there is no doubt that the federal PURPA will survive for the foreseeable future so they should be removed. The new definitions – of avoided costs, standard rates, and long-term contract -- clarify key terms that are used later in the statute and thus ought to be included in the statute itself instead of merely being defined by regulation. These definitions are drawn from the federal regulations.
- 2) Clarifies the duties of the utility and the PSC regarding the submission of avoided cost information, the calculation of avoided costs, and the standard rate calculation for all QF projects. Section 4 sets forth the basic requirement to purchase power from QFs, at either the rate set by the Commission, or a rate freely negotiated by the QF and NWE. Section 5 then sets out NWE's obligation, again taken directly from the federal regs, to submit information from which the PSC determines the utility's avoided costs and sets a rate for the QF contracts based on that avoided cost.
- 3) The law currently allows the PSC to sue NWE in state court for violations of QF law and recover penalties of \$100 - \$1000 per day of violation. The PSC has so far never used this power. HB 491 amends this existing penalty provision so that the PSC or any other aggrieved party can enforce the penalty provision of the law against the utility in state court. If the government cannot or will not enforce this law, the government must allow a private right of action.

¹ A Montana Court has found that NorthWestern's submissions do not meet the federal requirements and ordered the PSC to collect the data; when NorthWestern continued to refuse to offer the data, the PSC was sanctioned by the court. That case is ongoing, as is a separate dispute before the PSC regarding NWE's failure to submit the information.

Amendments offered in response to PSC comments:

1. A number of small points in Section 5 were brought up, which have been fixed.
 - a. The bill referred to “contract rates” in Section 5 without a new definition. Those references were removed, leaving the section regarding the PSC’s determination of contract-specific rates and conditions in its original form.
 - b. The bill required annual filing of avoided cost information. PSC staff pointed out that the federal regs only require biannual filing, so we changed it to reflect that. What is most important is not annual filing, but just that there is a hard and fast deadline and that NWE actually submits this data.
 - c. Section 5 also required that standard rates be based on avoided costs calculated “at time the contract is established”. PSC staff pointed out that, in some circumstances, this could violate the federal regs. That clause is removed.
 - d. Finally, Section 5 required that availability and reliability be considered “to the extent they are not already considered in standard rate”. PSC staff pointed out that this is somewhat nonsensical, and I agree. It was a drafting error and has been removed.
2. The original bill required in Section 4 that the utility negotiate QF contracts in good faith. The PSC found this to be a lopsided requirement, imposing an obligation on the utility but not the QF. In the interests of moving forward and keeping this bill as clean and straightforward as possible, we removed that provision.
3. Section 2 defines standard rate in a way that makes it apply to all QF contracts and Section 4 says that NWE must offer that standard to all QF projects. PSC staff points out that currently the commission sets a standard rate for QFs of less than 10MW, but a QF over 10MW must participate in a competitive solicitation process under the Commission’s rules. Also, federal law doesn’t require states to set standard rates for ALL QF projects; only very small ones. So, this new definition indicates that a standard rate is available to *all* QFs, even those over 10 MW.

In response, we slightly altered the definition to leave room for the commission to set different standard rates for different circumstances (for example, for different lengths of contract). However, we maintain that, under the current system, there should be a standard rate offered to QFs of all sizes. The competitive solicitation process required for projects over 10MW simply does not exist – it hasn’t ever been done. This leaves projects over 10MW with only the option of getting a “short term contract rate” – and again, according to a recent filing by NorthWestern, there is no such short term contract rate. So basically, if you are a QF over 10 MW in size, your only option is to wait for a competitive solicitation... which may never come. The reason a standard rate is important is that it allows QFs to get financing and get built. A QF, like any other business venture, must be able to show financiers its expected profits; without a standard rate for the power sale, it becomes very difficult to put together project financing. Establishing standard rates for QFs simply follows the intent of PURPA: to encourage renewable development. If NWE actually had a regular competitive solicitation process for QFs over 10MW, perhaps we would not need to worry about this threshold and could simply accept that only sub 10MW projects get a standard rate. Unfortunately, that is just unrealistic, so we propose that a simple, clear standard offer rate be set for all sizes of QFs.

*****PROPOSED AMENDMENTS 2/13 /09***** (Amendments highlighted)

2009 Montana Legislature

HOUSE BILL NO. 491

INTRODUCED BY B. WISEMAN

A BILL FOR AN ACT ENTITLED: "AN ACT GENERALLY REVISING SMALL POWER PRODUCTION LAWS; ~~REQUIRING A UTILITY TO CONTRACT IN GOOD FAITH AND IN ACCORDANCE WITH FEDERAL REGULATIONS FOR THE PURCHASE OF ELECTRICITY FROM QUALIFYING SMALL POWER PRODUCTION FACILITIES~~; REQUIRING THE COMMISSION TO DETERMINE AVOIDED COSTS AND STANDARD RATES; PROVIDING PENALTIES FOR A UTILITY'S NONCOMPLIANCE WITH SMALL POWER PRODUCTION LAWS; REPEALING A PENDING REPEAL OF THE SMALL POWER PRODUCTION LAWS; AMENDING SECTIONS 69-3-601, 69-3-602, 69-3-603, AND 69-3-604, MCA; REPEALING CHAPTER 284, LAWS OF 2003; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE AND AN APPLICABILITY DATE."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

NEW SECTION. **Section 1. Penalty.** (1) A public utility that violates any provision of 69-3-601 through 69-3-604, fails or refuses to comply with any provision of 69-3-601 through 69-3-604, fails to place in operation any rate established in accordance with 69-3-601 through 69-3-604, or fails, neglects, or refuses to obey a commission or court requirement or order enforcing any provision of 69-3-601 through 69-3-604 is subject to a civil penalty of not less than \$100 or more than \$1,000 per day of the violation, refusal, failure, or neglect.

(2) The penalty may be recovered in a civil action upon the complaint of the commission or an aggrieved party in any court of competent jurisdiction.

Section 2. Section 69-3-601, MCA, is amended to read:

"69-3-601. (Temporary) Definitions. As used in this part, the following definitions apply:

(1) "Avoided costs" means the incremental costs as determined by the commission to an electric utility of electric energy, capacity, or both that the utility would generate itself or purchase from another source if

the energy, capacity, or both were not purchased from the qualifying small power production facility or facilities.

~~(1)~~(2) "Commission" means the Montana public service commission.

~~(2)~~(3) "Electric cooperative" means a rural electric cooperative organized under the laws of Montana, or a foreign corporation admitted to do business in Montana.

~~(4)~~ "Long-term contract" means a contract of 15 years or longer in duration.

~~(3)~~(5) "Qualifying small power production facility" means a facility that:

(a) produces electricity by the use, as a primary energy source, of biomass, waste, water, wind, or other renewable resource, or any combination of those sources; or

(b) produces electricity and useful forms of thermal energy, such as heat or steam, used for industrial, commercial, heating, or cooling purposes through the sequential use of energy known as cogeneration; and

(c) has a power production capacity that together with any other facilities located at the same site is not greater than 80 megawatts; and

(d) is owned by a person not primarily engaged in the generation or sale of electricity other than electric power from a small power production facility.

(6) "Standard rate" means a rate ~~for the purchase of energy and capacity from~~ applicable to all power purchase contracts between a utility and qualifying small power production facilities that do not choose to negotiate a different rate.

~~(4)~~(7) "Utility" means any public utility supplying electricity and regulated by the commission. ~~(Repealed on occurrence of contingency—secs. 1, 3, Ch. 284, L. 2003.)~~"

Section 3. Section 69-3-602, MCA, is amended to read:

"69-3-602. (Temporary) Generation and sale of electricity by qualifying small power production facility. (1) A qualifying small power production facility may generate electricity from the sources described in ~~69-3-601(3)(a)~~ 69-3-601(5)(a) and ~~(3)(b)~~ (5)(b) and may contract for the sale of that electricity with a utility.

(2) A qualifying small power production facility may generate electricity from the sources described in ~~69-3-601(3)(a)~~ 69-3-601(5)(a) and ~~(3)(b)~~ (5)(b) and may contract for the sale of that electricity with an electric cooperative under terms and conditions mutually agreed upon between the parties and in

compliance with the rates and regulations established by the Public Utility Regulatory Policies Act.
(Repealed on occurrence of contingency—secs. 1, 3, Ch. 284, L. 2003.)"

Section 4. Section 69-3-603, MCA, is amended to read:

"69-3-603. (Temporary) Required sale of electricity under rates and conditions prescribed by commission. (1) (a) Except as provided in subsection (1)(b), a utility shall purchase any energy and capacity made available by a qualifying small power production facility.

(b) A utility is not obligated to make the purchases under exceptional circumstances prescribed by commission rules.

(2) The utility shall offer a power purchase contract to the qualifying small power production facility including the applicable standard rate for the sale of electricity by qualifying facilities as determined by the commission. The qualifying small power production facility and the utility may negotiate a rate different from the applicable standard rate.

(3) A utility shall negotiate in good faith to form a contract with a qualifying small power production facility. If the commission finds a utility has failed to negotiate in good faith, the utility is subject to the penalty provided for in [section 1].

(1)(4)(3) If a qualifying small power production facility and a utility are unable to mutually agree to a contract for the sale of electricity or a price for the electricity to be purchased by the utility, the commission shall require the utility to purchase the electricity under rates and conditions established under the provisions of subsection (2) (5).

(2)(5)(4) The commission shall determine the rates and conditions of the contract upon petition of a qualifying small power production facility or a utility or during a rate proceeding involving the review of rates paid by a utility for electricity purchased from a qualifying small power production facility. The commission shall render a decision within 120 days of receipt of the petition or before the completion of the rate proceeding. The rates and conditions of the determination shall must be made according to the standards prescribed in 69-3-604. (Repealed on occurrence of contingency—secs. 1, 3, Ch. 284, L. 2003.)"

Section 5. Section 69-3-604, MCA, is amended to read:

"69-3-604. (Temporary) Standards for determination of standard rates and contract conditions.

(1) (a) By June 30, 2009 and by June 30 of every subsequent ~~odd-numbered~~ year, a utility shall submit to the commission information in compliance with 18 CFR 292.302.

(b) The commission shall use the information required in subsection (1)(a) to calculate the utility's avoided costs.

(2) The commission shall determine the standard rates for the sale of electricity from qualifying small power production facilities to a utility based on the avoided costs calculated by the commission pursuant to subsection (1)(b).

(3) A standard rate may not exceed the utility's avoided costs ~~as calculated at the time the contract is established.~~

(4) The In a proceeding to determine a specific contract rate and conditions pursuant to 69-3-603(5), the commission shall determine the ~~contract~~ rates and conditions of the contract ~~for the sale of electricity by a qualifying small power production facility~~ according to the standards in subsections (2) (5) through (5) (7).

(5) Long-term contracts for the purchase of electricity by the utility from a qualifying small power production facility shall ~~must~~ be encouraged in order to enhance the economic feasibility of qualifying small power production facilities.

(6) The ~~contract rate rates to be paid by a utility for electricity purchased from a qualifying small power production facility shall~~ must be established with consideration of the availability and reliability of the electricity produced ~~by the qualifying small power production facility, to the extent that the factors have not already been accounted for in the standard rate.~~

(7) The commission may set ~~these rates the contract rate~~ by use of any of the following methods:

(a) the avoided cost over the term of the contract;

(b) the cost of production for the qualifying small power production facility plus a just and reasonable return; or

(c) any other method that will promote the development of qualifying small power production facilities.

(8) The commission may adopt rules further defining the criteria for qualifying small power production facilities, their cost-effectiveness, and other standards. ~~(Repealed on occurrence of contingency secs. 1, 3, Ch. 284, L. 2003.)"~~

NEW SECTION. Section 6. Repealer. Chapter 284, Laws of 2003, is repealed.

NEW SECTION. **Section 7. Codification instruction.** [Section 1] is intended to be codified as an integral part of Title 69, chapter 3, part 6, and the provisions of Title 69, chapter 3, part 6, apply to [section 1].

NEW SECTION. **Section 8. Saving clause.** [This act] does not affect rights and duties that matured, penalties that were incurred, or proceedings that were begun before [the effective date of this act].

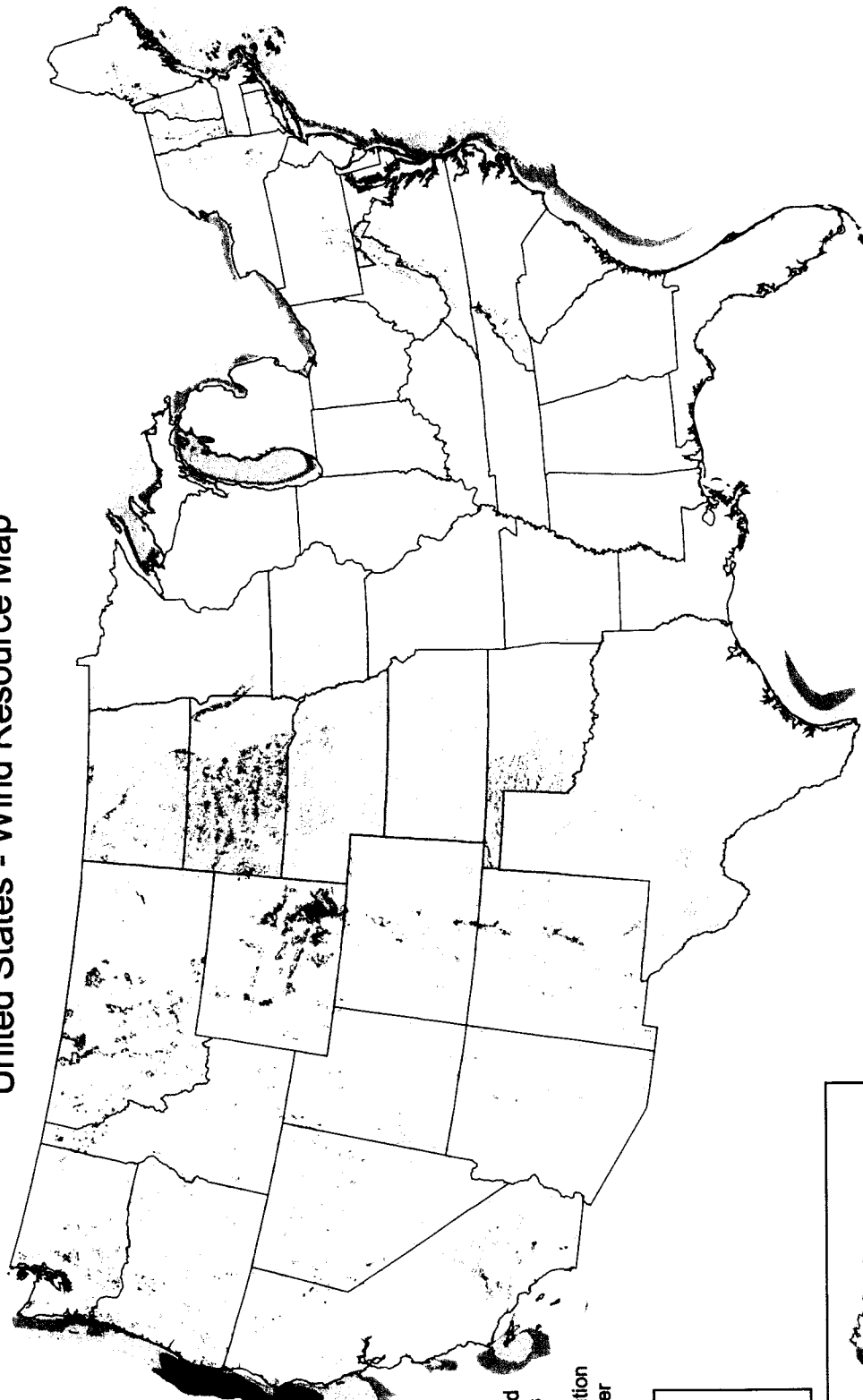
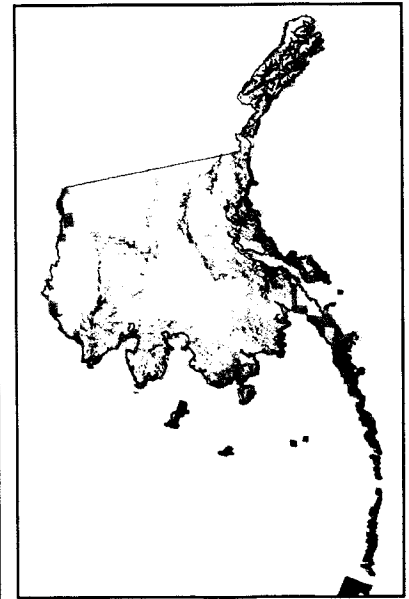
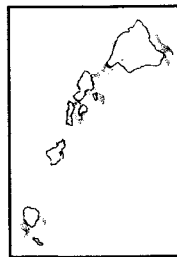
NEW SECTION. **Section 9. Effective date.** [This act] is effective on passage and approval.

NEW SECTION. **Section 10. Applicability.** [This act] applies to contracts entered into and rates established after [the effective date of this act].

- END -

United States - Wind Resource Map

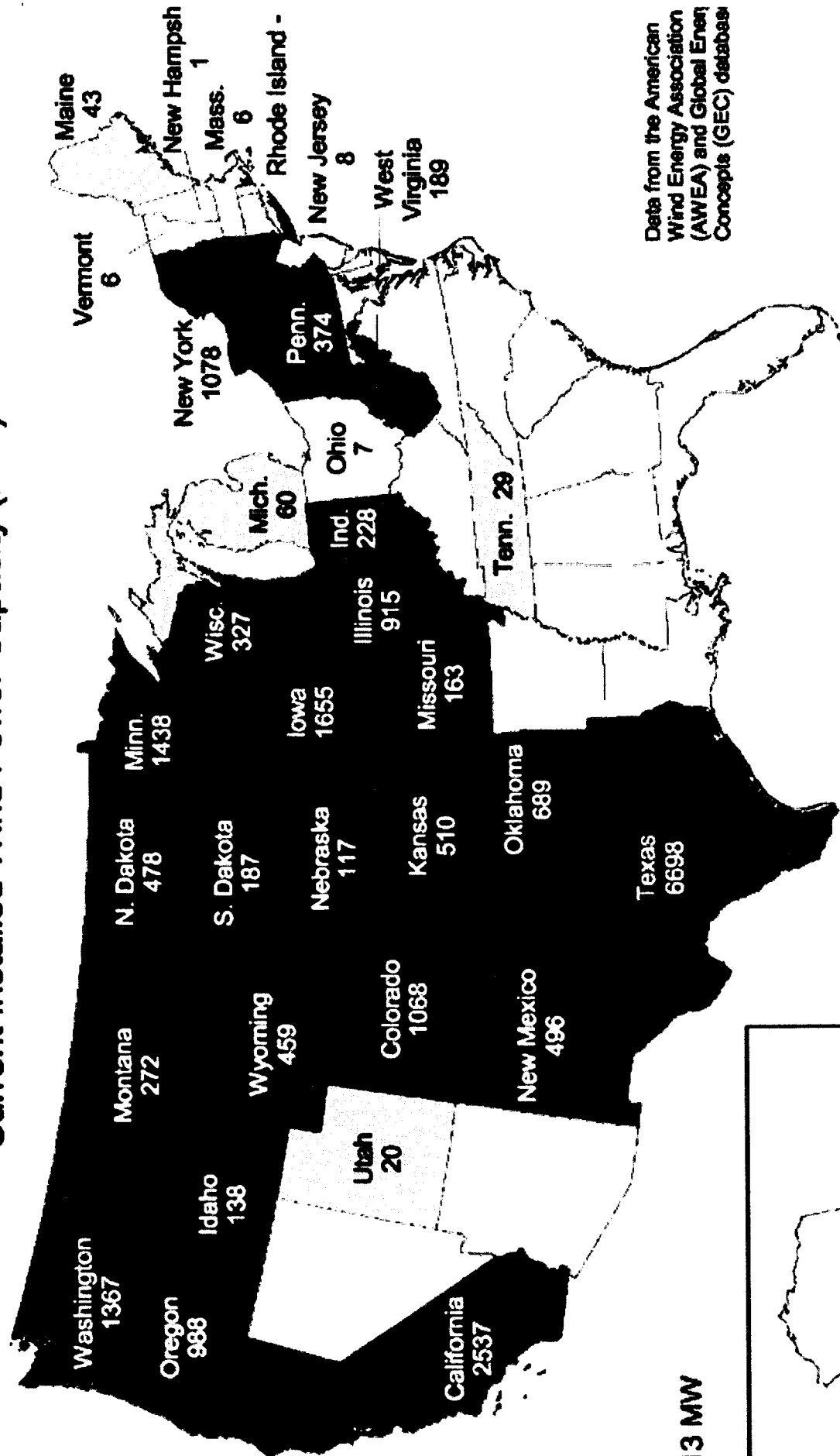
This map shows the annual average wind power estimates at 50 meters above the surface of the United States. It is a combination of high resolution and low resolution datasets produced by NREL and other organizations. The data was screened to eliminate areas unlikely to be developed onshore due to land use or environmental issues. In many states, the wind resource on this map is visually enhanced to better show the distribution on ridge crests and other features.



Wind Power Classification				
Wind Power Class	Resource Potential	Wind Power Density at 50 m W/m^2	Wind Speed ^a at 50 m m/s	Wind Speed ^a at 50 m mph
3	Fair	300 - 400	6.4 - 7.0	14.3 - 15.7
4	Good	400 - 500	7.0 - 7.5	15.7 - 16.8
5	Excellent	500 - 600	7.5 - 8.0	16.8 - 17.9
6	Outstanding	600 - 800	8.0 - 8.8	17.9 - 19.7
7	Superb	800 - 1600	8.8 - 11.1	19.7 - 24.8

^a Wind speeds are based on a Weibull k value of 2.0

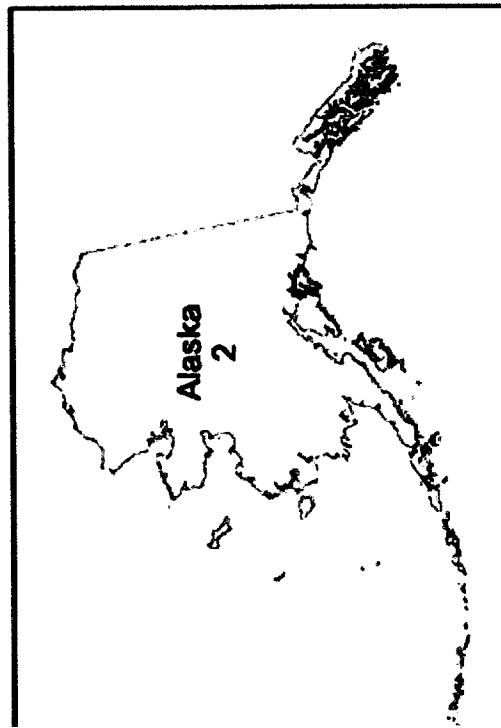
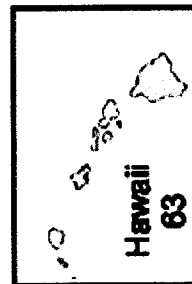
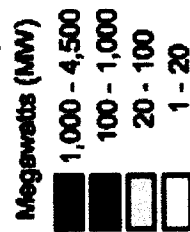
Current Installed Wind Power Capacity (MW)



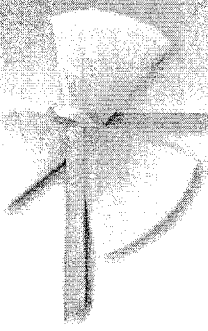
Total: 22,613 MW
as of 9/30/06

Data from the American
Wind Energy Association
(AWEA) and Global Energy
Concepts (GEC) database

Wind Power Capacity Megawatts (MW)



U.S. Department of Energy
National Renewable Energy Laboratory



Economic Benefits, Carbon Dioxide (CO₂) Emissions Reductions, and Water Conservation Benefits from 1,000 Megawatts (MW) of New Wind Power in Montana

Wind power is one of the fastest-growing forms of new power generation in the United States. Industry growth in 2007 was an astounding 45%. New wind power installations constituted 30% of all new electric power installations. This growth is the result of many drivers including increased economic competitiveness and favorable state policies such as Renewable Portfolio Standards. However, new wind power installations provide more than cost-competitive electricity. Wind power brings economic development to rural regions, reduces water consumption in the electric power sector, and reduces greenhouse gas production by displacing fossil fuels.

The U.S. Department of Energy's Wind Powering America Program is committed to educating state-level policy makers and other stakeholders about the economic, CO₂ emissions, and water conservation impacts of wind power. This analysis highlights the expected impacts of 1000 MW of wind power in Montana. Although construction and operation of 1000 MW of wind power is a significant effort, six states have already reached the 1000-MW mark. We forecast the cumulative

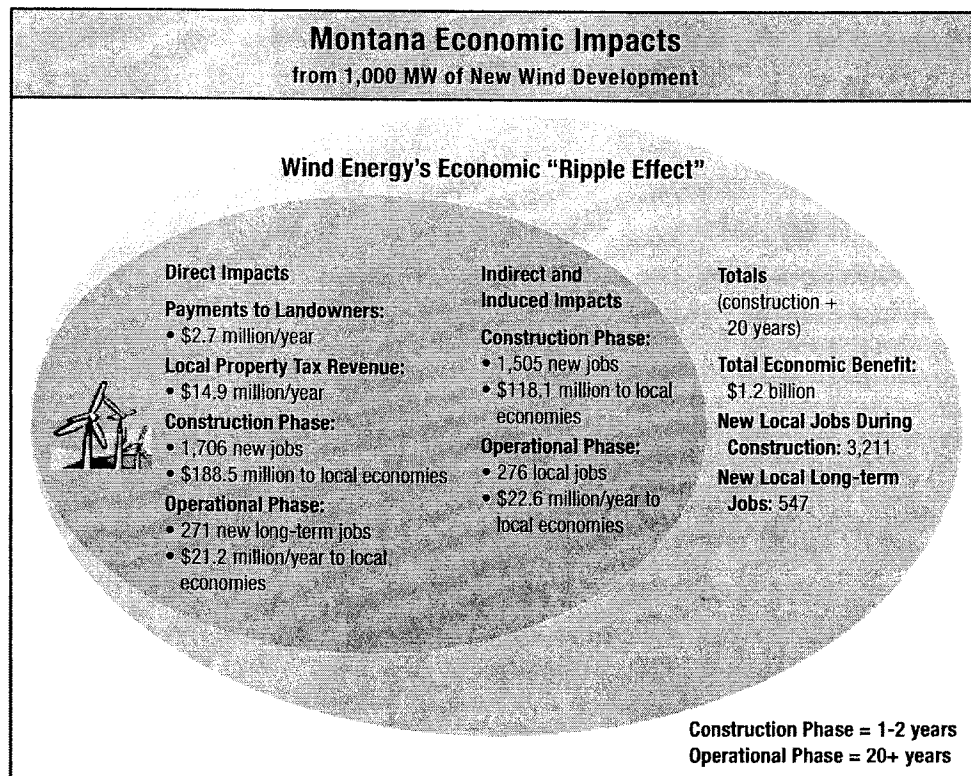
economic benefits from 1000 MW of development in Montana to be **\$1.2 billion**, annual CO₂ reductions are estimated at **2.9 million tons**, and annual water savings are **1,207 million gallons**.

Economic Benefits

Building and operating 1000 MW of wind power requires a significant investment. But this investment will generate substantial direct, indirect, and induced economic benefits for Montana. Direct benefits include jobs, land-lease payments, and increased tax revenues. Indirect benefits include benefits to businesses that support the wind farm. Induced benefits result from additional spending on goods and services in the area surrounding the development.

Direct impacts result from investment in the planning, development, and operation of new wind facilities. Beneficiaries include landowners, construction workers, O&M staff, turbine manufacturers, and project managers. Indirect impacts reflect payments made to businesses that support the wind facility and include banks financing the project, component suppliers, and manufacturers of equipment used to install and maintain the facility. Induced benefits result from increased spending by direct and indirect beneficiaries. Examples include increased business to restaurants, retail establishments, and child care providers.

Drivers of economic benefits include the use of local construction companies, the presence of in-state component suppliers, local wage structures, local property tax structures, and operation and maintenance (O&M) expenditures. The projected benefits for Montana could be greatly increased by the development of a local wind supply, installation, and maintenance industry within the state.



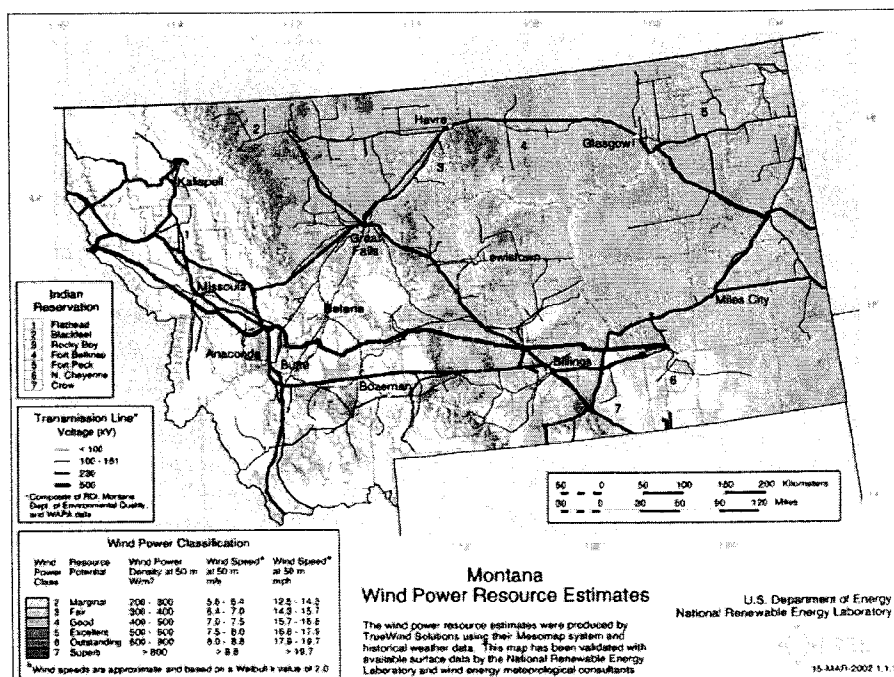
U.S. Department of Energy

Energy Efficiency and Renewable Energy

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Montana

Distribution of Wind Resources in Montana



CO₂ Emissions and Water Conservation Benefits

In 2004, the average Montana resident emitted approximately 22.7 tons of CO₂ from electricity consumption. As a state, Montana ranked 5th in per capita electricity sector CO₂ emissions. CO₂ emissions are increasingly important factors as state and federal government consider policies regarding climate change while drought in the Southeast has underscored the relevance of freshwater supply issues throughout the United States.

Developing wind power in Montana will result in CO₂ emissions reductions and water savings. Choosing to build wind projects results in CO₂ reductions from decreased natural gas consumption. In addition, both fossil- and nuclear-based electricity generation consume large amounts of water. Wind power reduces our reliance on increasingly vital freshwater resources.

Methodology

The data for economic analysis are primarily from interviews with state-specific contacts, including developers, power plant operators, contractors, mining and gas associations, and state property tax assessors or administrators. When interviews were not possible, information was obtained from public Web resources, state tax reports, and federal databases for current power plants. Cumulative impacts are estimated for construction and 20 years of operations. Economic impacts are estimated by application of NREL's Jobs and Economic Development Impacts (JEDI) model. Carbon estimates apply 2004 non-baseload CO₂ emissions rates (EPA eGRID2006 Version 2.1, April 2007). Water savings are calculated based on consumption rates for various generating technologies. Consumption rates were compiled by Western Resource Advocates. Consumption rate data were taken from EIA form 767 and EPRI publications. Rates are applied to the specific NERC region resource and prime mover mix as determined from EIA form 960/920.

Annual Impacts in Montana from 1000 MW of New Wind Power

Water Savings	CO ₂ Savings
1,207 million gallons	2.9 million tons

For more information, contact:

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 National Renewable Energy Laboratory
 1617 Cole Blvd. MS3811
 Golden, CO 80401

Data Inputs

Construction Cost	\$1,650/kW
Operations and Maintenance	\$24.70/kW/yr
Property Tax	\$14,860/MW/year
Landowner Lease Payments	\$2,667/MW/year

A Strong Energy Portfolio for a Strong America

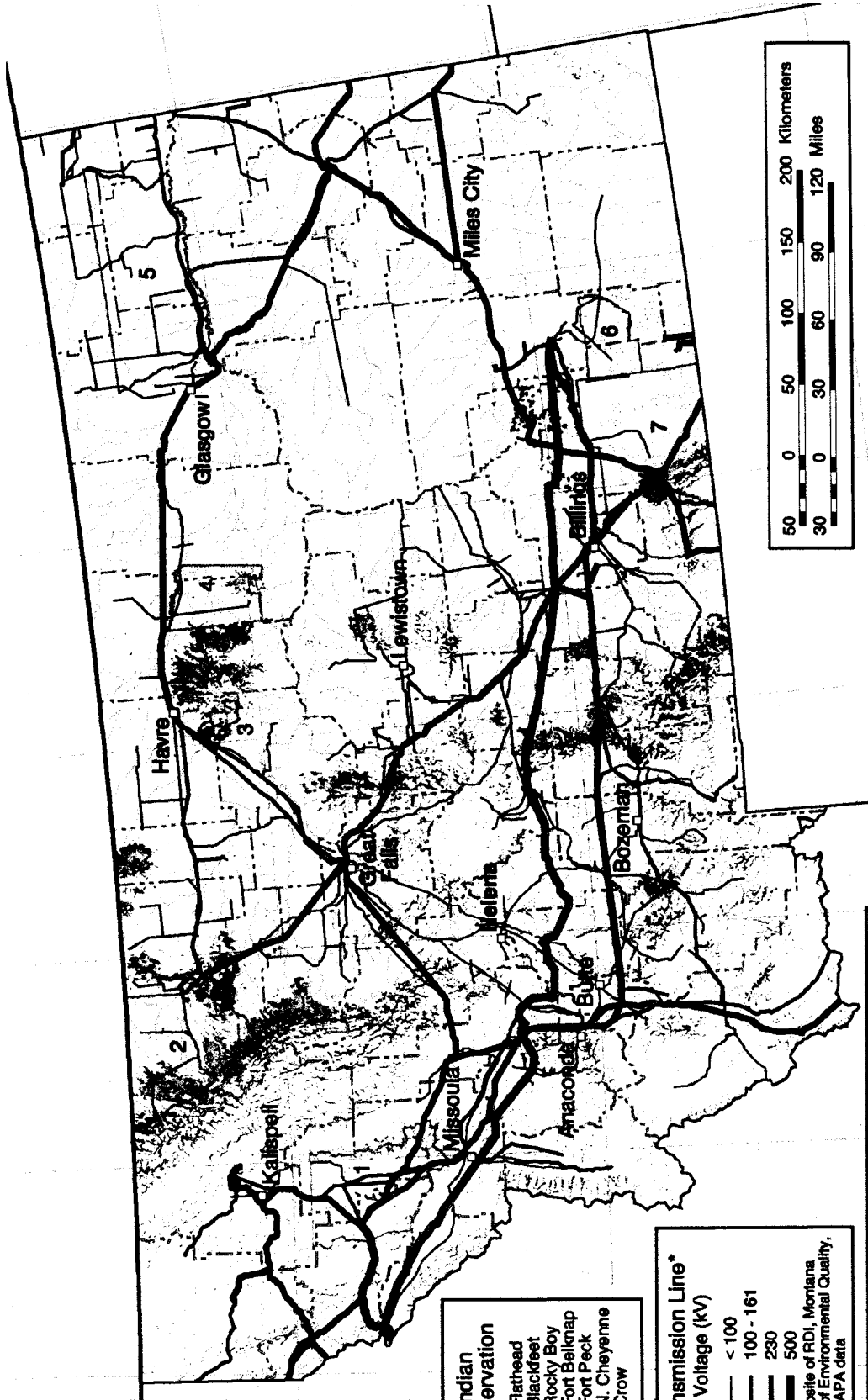
Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

Prepared by the National Renewable Energy Laboratory (NREL)
 NREL is a national laboratory of the U.S. Department of Energy
 Operated by the Alliance for Sustainable Energy, LLC

Printed with a renewable-source ink on paper containing at least 50%
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Indian Reservation

- 1 Flathead
- 2 Blackfeet
- 3 Rocky Boy
- 4 Fort Belknap
- 5 Fort Peck
- 6 N. Cheyenne
- 7 Crow

Transmission Line* Voltage (kV)

- < 100
- 100 - 161
- 230
- 500

*Composite of RDI, Montana Dept. of Environmental Quality, and WAPA data

Wind Power Classification

Wind Power Class	Resource Potential	Wind Power Density at 50 m W/m ²	Wind Speed ^a at 50 m m/s	Wind Speed ^a at 50 m mph
2	Marginal	200 - 300	5.6 - 6.4	12.5 - 14.3
3	Fair	300 - 400	6.4 - 7.0	14.3 - 15.7
4	Good	400 - 500	7.0 - 7.5	15.7 - 16.8
5	Excellent	500 - 600	7.5 - 8.0	16.8 - 17.9
6	Outstanding	600 - 800	8.0 - 8.8	17.9 - 19.7
7	Superb	> 800	> 8.8	> 19.7

^aWind speeds are approximate and based on a Weibull k value of 2.0

Montana Wind Power Resource Estimates

The wind power resource estimates were produced by TrueWind Solutions using their Mesomap system and historical weather data. This map has been validated with available surface data by the National Renewable Energy Laboratory and wind energy meteorological consultants.

U.S. Department of Energy
National Renewable Energy Laboratory

15-MAR-2002 1.1.1

	A	B	C	D	E	F	G	H	I	J	K	L
1	NorthWestern Energy											
2	Data Response to PSC-009a											
3	Docket D2008.12.146											
4												
5	Qualifying Facility	First Contract Year	First Contract Duration	Current Contract Year	Current Contract Duration	Basis For Payment	Contract kW	Average Paid \$/MWh (2008)	Average Paid Capacity (2008)	Capacity Rate Type	Location	Annual Cap. Factor (2008)
6	Agnew Ranch	10/1/2001	9 Month	11/1/2001	7 Year	QF-1 Fix	65	\$49.90	NA	NA	11 miles NE of Big Timber, MT	12.6%
7	Barney Creek	NA	NA	11/18/2004	35 Year	QFLT-84	60	\$61.31	\$93.17	\$/kW/Yr	S of Livingston, MT	25.3%
8	Billings Generation	NA	NA	3/1/1991	35 Year	Negotiation	52,000	\$59.32	\$5.54	\$/kW/Mth	Boxon refinery in Lockwood, MT	89.1%
9	Boulder Hydro**	9/13/1985	18 Year	7/1/2007	20 Year	QF-1 Mkt	510	\$47.06	NA	NA	1 mile E of Maxville, MT	0.3%
10	Broadwater	NA	NA	10/30/1987	35 Year	LTOF-86	10,000	\$52.48	\$15.11	\$/kW/Mth	S of Toston, MT	52.7%
11	Cascade Creek	NA	NA	10/1/1984	35 Year	QFLT-84	68	\$61.31	\$93.17	\$/kW/Yr	S of Livingston, MT	74.7%
12	Colstrip Energy Limited Ptn.*	NA	NA	10/15/1984	35 Year	Negotiation	35,000	\$57.03	\$91.17	\$/kW/Yr	6 miles N of Colstrip, MT	95.7%
13	Harover Hydro	NA	NA	11/26/1984	26 Year	QFLT-84	240	\$53.26	\$86.24	\$/kW/Yr	Near Harover, MT	8.5%
14	Martinsdale	5/1/2004	3 Year	4/23/2008	20 Year	QF-1 Mkt	750	\$39.09	NA	NA	3 miles N of Martinsdale, MT	21.9%
15	Martinsdale South	11/1/2005	2 Year	10/31/2008	20 Year	QF-1 Mkt	2,000	\$38.03	NA	NA	3 miles N of Martinsdale, MT	5.7%
16	Mission Creek***	4/1/1998	10 Year	NA	NA	NA	65	NA	NA	NA	1 mile NW of Livingston, MT	30.5%
17	Moce Wind	12/1/2005	2 Year	4/23/2008	20 Year	QF-1 Mkt	450	\$39.83	NA	NA	5 miles W of Two Dot, MT	16.9%
18	Montana Marginal***	1/1/1998	10 Year	NA	NA	NA	195	NA	NA	NA	2 miles E of Livingston, MT	17.0%
19	Pine Creek	NA	NA	11/15/1984	35 Year	QFLT-84	300	\$56.44	\$91.54	\$/kW/Yr	9 miles S of Livingston, MT	43.3%
20	Pony Generating Sta.	NA	NA	7/1/1984	20 Year	QFLT-84	300	\$58.04	\$83.80	\$/kW/Yr	Near Pony, MT	24.3%
21	Ross Creek	NA	NA	7/24/1996	36 Year	LTOF-1	450	\$28.95	\$3.48	\$/kW	10 miles N of Bozeman, MT	58.0%
22	Sheep Valley	9/1/2003	4 Year	4/23/2008	20 Year	QF-1 Mkt	455	\$38.48	NA	NA	1 mile NW of Two Dot, MT	26.2%
23	South Dry Creek	NA	NA	10/31/1984	35 Year	Negotiation	1,200	\$59.84	NA	NA	4 miles NE of Red Lodge, MT	72.3%
24	Strawberry Creek	NA	NA	11/15/1984	35 Year	Negotiation	190	\$60.31	NA	NA	15 miles S of Livingston, MT	77.6%
25	United Materials	5/31/2006	3 Month	6/1/2008	1 Year	QF-1 Mkt	9,000	\$43.57	NA	NA	Near Great Falls, MT	21.7%
26	Wisconsin Creek Ltd. Ptn.***	11/16/1984	30 Year	7/1/2007	7 Year	QF-1 Fix	400	\$49.90	NA	NA	3 miles NE of Sheridan, MT	27.7%
27												
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34												
35												

Note: NA is not applicable.
Mission Creek, MT Marginal, United Materials are under negotiation without a contract.
*CELP subject to court order it does not reflect past three years of escalation.
**Boulder had an extended outage during 2008.
***Contracts under negotiation are Mission Creek, MT Marginal, and United Materials.

NWE QF Contract Requests

Count	Facility	kW	Generation	Request	Status	Last Contact	Total MW
1	Valley (Wheeling)	10,000	Wind	17-Nov-06	Pending contract issues	02-Apr-08	10
2	Kimmet	10,000	Wind	17-Nov-06	Developer reviewing contract	02-Apr-08	20
3	F Creek	2,000	Hydro	13-Dec-06	Developer reviewing contract	10-Jan-08	22
4	A- Drop	1,250	Hydro	20-Dec-06	Developer reviewing contract	10-Jan-08	23
5	Greenfield	800	Hydro	20-Dec-06	Developer reviewing contract	10-Jan-08	24
6	Johnson	1,000	Hydro	20-Dec-06	Developer reviewing contract	10-Jan-08	25
7	Knights	1,100	Hydro	20-Dec-06	Developer reviewing contract	10-Jan-08	26
8	Woods	1,500	Hydro	20-Dec-06	Developer reviewing contract	10-Jan-08	28
9	Diamond T	10,000	Wind	02-Jan-07	Developer waiting Two Dot docket	25-Feb-08	38
10	Momentum	10,000	Wind	03-Jan-07	Developer working on project	21-Jan-08	48
11	Potosi	250	Hydro	08-Jan-07	Waiting on developer attorney	08-Jan-07	48
12	Lumber Mill	700	Bio Mass	18-Jan-07	Working on interconnection	28-Feb-08	49
13	Martinsdale 3	10,000	Wind	24-Jan-07	Waiting on reply status	09-Jan-08	59
14	Liberty (Wheeling)	1,000	Wind	05-Feb-07	Waiting on list cycle	05-Feb-07	60
15	Chester (Wheeling)	500	Wind	05-Feb-07	Waiting on list cycle	06-Feb-07	60
16	Prospect	10,000	Wind	07-Feb-07	Waiting on list cycle	01-Feb-08	70
17	Kentfield	10,000	Wind	20-Jun-07	Waiting on developer response	09-Jan-08	80
18	Exergy	9,000	Wind	28-Jun-07	Waiting on list cycle	10-Feb-08	89
19	Zeitner	3,000	Wind	03-Aug-07	Waiting on list cycle	22-Jan-08	92
34	Various 22 sites, 0.5 to 2 MW	23,000	Wind	29-Aug-07	Waiting on developer response	19-Feb-08	115
36	TurnBull 1 & 2 (Wheeling)	10,000	Hydro	20-Sep-07	Waiting on list cycle	11-Feb-08	125
38	Liberty 2 (Wheeling)	10,000	Wind	09-Jan-08	Waiting on list cycle	31-Jan-08	135
39	Cut Bank	10,000	Wind	17-Jan-08	Waiting on list cycle	17-Jan-08	145
41	Element 2 @ 10 MW	20,000	Wind	08-Feb-08	Waiting on list cycle	17-Apr-08	165
42	GeoThermal	1,000	Hydro	21-Mar-08	Waiting on list cycle	21-Mar-08	166
43	Tailrace	500	Hydro	03-Apr-08	Waiting on list cycle	07-Apr-08	167
44	Little Judith	3,000	Wind	03-Apr-08	Waiting on list cycle	03-Apr-08	170
45	Great Falls	10,000	Wind	18-Apr-08	Contract Info Request	23-Apr-08	180

179,600		
159,500	Wind	88.81%
19,400	Hydro	10.80%
700	Bio Mass	0.39%
		<u>100.00%</u>

c.) A narrative description of the measures used by NorthWestern to ensure that proposed projects are viable and likely to be completed before projects are placed in the list or queue;

Under PURPA and Montana's Mini-PURPA, NorthWestern has an obligation to Purchase QF power. QF developers have a right to enter into contracts with NorthWestern for the sale of power. Consequently, NorthWestern must utilize practices and procedures that do not constructively foreclose the opportunity of QFs to be awarded or obtain a PPA with the utility. Requiring potential QFs to demonstrate viability prior to entering the queue may invite unnecessary regulatory and legal risk. However, as explained below, QF Queue Procedures to be employed will help to insure project viability on an ongoing basis.